

# Marshall Electronics

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## V-R70P-SD Users Guide

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## 1 Product Overview

The **V-R70P-SD** features Marshall's proprietary TFT-MegaPixel™ display system and represents leading edge technology in LCD imaging for broadcast and professional video applications. This is a low cost stand alone monitor and is constructed with a durable enclosure featuring an optical grade polycarbonate protective cover for the antiglare/antireflective screen. A V-Mount battery adapter is also included and the monitor can be powered for over 5 hours with a 50WH battery. The 1.2-million pixel TFT screen has 130 degree viewing angles and incorporates completely digital signal processing to provide image reproduction that exceeds all CRT displays available in a similar form factor. All SMPTE/ITU High Definition and Standard Definition digital video standards and signal types are accepted and displayed on this model. All video formats are scaled to fit on screen in the highest resolution using a state of the art LSI that incorporates 4x4 pixel interpolations with precision Gamma correction to produce the best images available. Additional features include, three LED tally, setup memory, Blue Gun, and direct access for all adjustment and selection functions.

## 2 Features

<b>High Definition Displays</b>	Capable of displaying more than 900 TV Lines resolution. Standard definition is internally up converted to High Definition. All signals remain completely digital to provide the most exact images available.
<b>Standard Inputs</b>	<ul style="list-style-type: none"> <li>• SDI (SMPTE-259M)</li> <li>• Analog Composite PAL/NTSC Auto Detect (BNC with loop out) (SMPTE170M)</li> <li>• Y/C (S-video) (4 Pin Mini-din with loop out)</li> </ul>
<b>Durable metal enclosure</b>	• Protection for all connections and controls with strategically placed ventilation for use in harsh environments
<b>Protective Screen Cover</b>	• Optical grade polycarbonate screen cover with Antireflective / Antiglare coating
<b>Memory Function</b>	• Adjustment Settings Memory stored on shutdown and recalled when power is applied
<b>Blue Screen</b>	• Use for adjustment to SMPTE color Bars
<b>Built in color bars</b>	• For screen testing purposes
<b>Tally (DB-15)</b>	• Three LEDs (Red, Green, Amber) produce 7 different tally indications

## 3 Standard Accessories      Accessories Supplied with the V-R70P-SD

- Users manual
- “Brick” type 12vdc power supply with 4 Pin Female XLR connector
- “V” Mount battery adapter
- ¼”-20 mounting plate

## 4 Optional Accessories

<b>Stand</b>	<b>V-LCD4-ST</b>		Use for table top mount
<b>Camera Hot Shoe Mount</b>	<b>V-LCD4-MT</b>		Attaches monitor to camera
<b>Sun Hood</b>	<b>V-H700P</b>		Use for viewing in bright lighting or outdoors
<b>Power Adapter Cable</b>	<b>V-PAC-D-XLR</b>		Use with Anton Bauer D-type connection
<b>Power Adapter Cable</b>	<b>V-PAC-XLR-1</b>		Use with 4 Pin XLR connections

## 7 Faceplate Cleaning

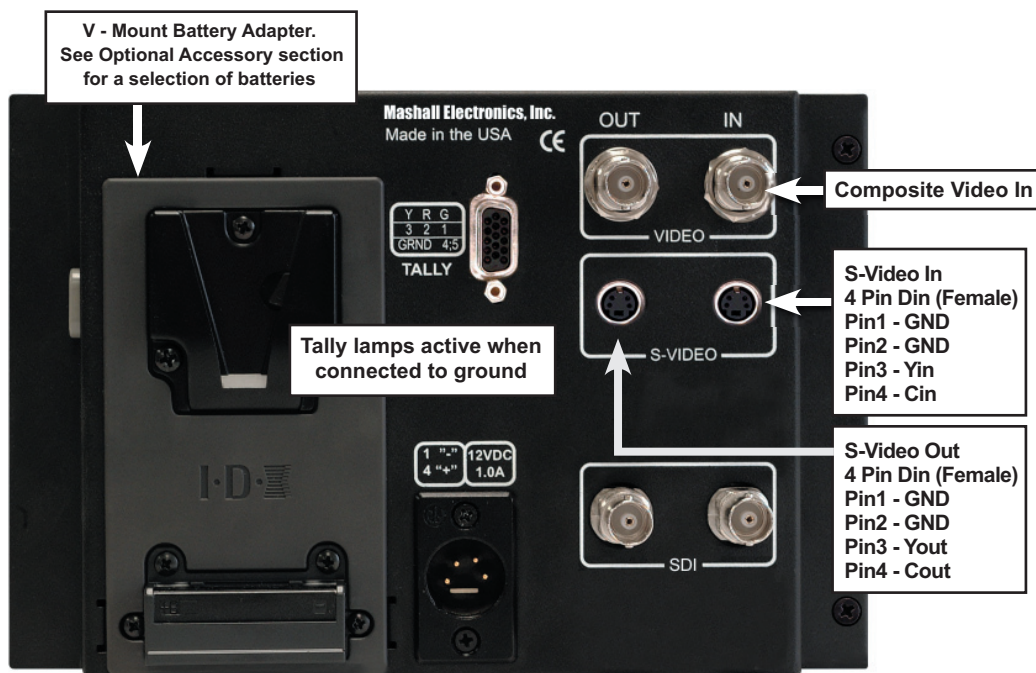
When cleaning the faceplate it is very important to use non-abrasive and ammonia free cleaning agents and a clean micro fiber clothe, or cheese clothe. Do not use paper towels. Paper towel fibers are coarse and may scratch the surface of the Polycarbonate faceplate. Paper towels may also leave streaks on the surface. Antistatic and fingerprint resistant cleaning agents are recommended.

## 8 Operational Setup

1. Unpack the V-R70P-SD and accompanying power supply. Physically inspect for any damage that may have occurred during shipping. Should there be any damage, immediately contact Marshall Electronics at 800-800-6608. If you are not located within the continental United States call +1 310-333-0606.
2. Connect required cables for signal input and output.  
Please note that power must be applied to the V-R70P-SD for the SD/SDI outputs to be activated. All BNC connectors should be rated for 75Ω.
3. Plug the power supply into the A.C. source  
Please note that power can be supplied from a variety of DC sources, such as batteries or Vehicle power. Input power range is 10.7 to 15 Volt D.C.  
In operation, the V-R70P-SD will draw approx. 0.8 amp.  
Attach 4 Pin XLR power connection from V-PS12-V-5 power supply to the back of the unit.
4. Turn on the V-R70P-SD by depressing the power switch located on the front of the unit.

## 9 Input Connectors

- \* Composite Video Inputs comply to SMPTE-170M
- \* Component Inputs comply to SMPTE274M, 294M
- \* Outputs Require Power to be applied for activation
- \* Battery and External Power can not be used simultaneously
- \* Active Outputs require power to be applied. All input signals appear as output signal. Analog output signals are buffered and amplified.



## Optional Accessories (continued)

Sequential 2 channel charger	IDX-VL-2Plus		2-channel sequential charger with a built-in 60W power supply. Charges 2 ENDURA E series batteries in fewer than 5 hours. One 10' XLR cable included. Weighs only 2 lbs
Sequential 4 channel charger	IDX-VL-4		Economically charges 4 ENDURA E series batteries in under 6 hours using Full Power Charge (FPC) method
Simultaneous 4 channel charger	IDX-VL-4S		Charges 4 ENDURA E series batteries in 2.5 hours or less
55 W Lithium Battery	IDX-E50S		V-Mount battery pack with 3 LED power Indicator
55 W Lithium Battery with Power Link	IDX-E50		V-Mount Battery Pack with PowerLink includes accurate Power Status Display and supports Digi-View
82 W Lithium Battery	IDX-E80S		V-Mount battery pack with 3 LED power Indicator
82 W Lithium Battery with Power Link	IDX-E80		V-Mount Battery Pack with PowerLink includes accurate Power Status Display and supports Digi-View
Protective Carry Case	V-CC1		Manufactured by Storm Case
Analog to Digital Converter	BC-0909-AD		Converts analog Composite, YC, or component to HDSDI/SDI
Digital to Analog Converter	BC-0909-DA		Converts SDI/HDSDI to analog Composite, YC, or Component video
Mounting Plate			Attaches to any side for mount to 1/4-20 threaded component
Cleaning Wipes	V-HWP-K		Package of 10 non-toxic, antistatic, alcohol and ammonia free cleaning wipes.

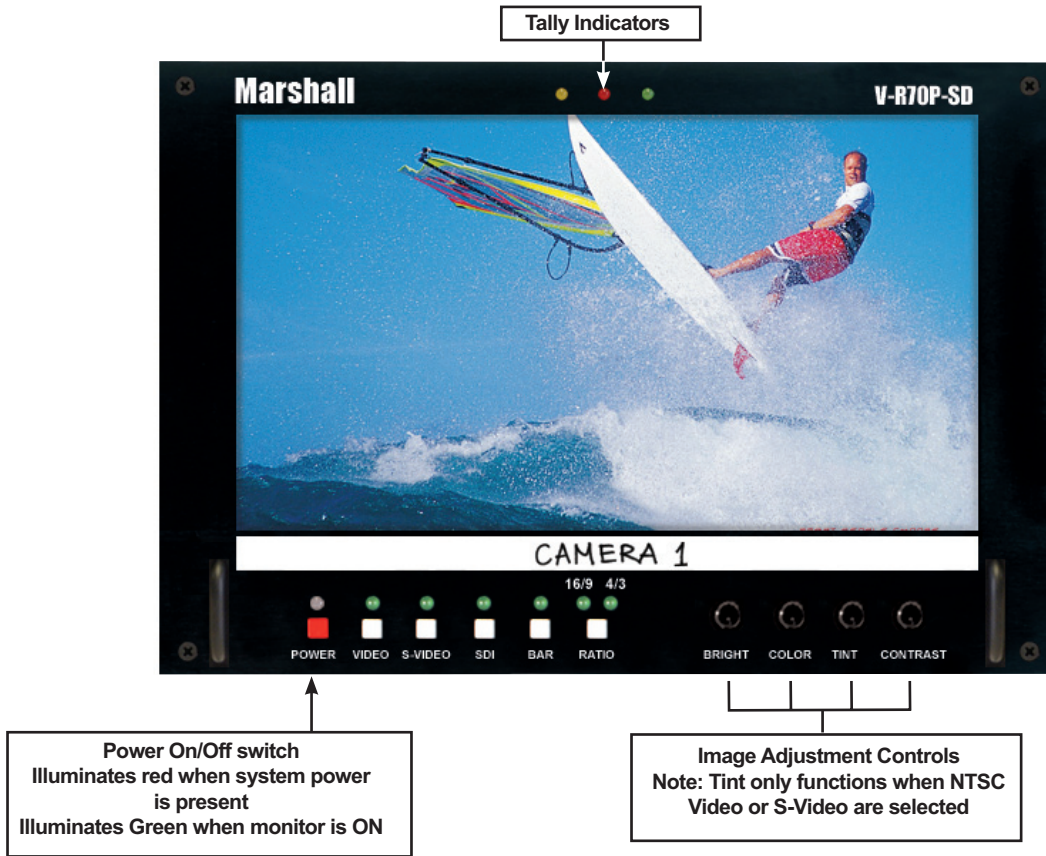
## 5 Electrical Specifications

<b>Display (Viewing Area)</b>	7" (6.14"H x 3.27"V) (156.0mm x 83.28mm)
<b>Viewing Angles</b>	130°H x 120°V
<b>Resolution (RGB Dots)</b>	800H x RGB x 480V (1.2 million pixels)
<b>Contrast Ratio</b>	400:1
<b>Color temperature</b>	D65 (6500° Kelvin)
<b>Color Gamut</b>	SMPTE-C of CEI-1931
<b>Gamma</b>	2.2
<b>Luma Linearity</b>	Typical +/- 3% with 5 ire increments (0 to 10 ire)
<b>Dot Pitch</b>	0.065mm H x 0.173mm V
<b>Pixel Response</b>	30ms average
<b>Screen Refresh Rate</b>	50/60 Frames per second
<b>Backlight Type / Life</b>	CCFL / 10,000 to 20,000 Hours Typical
<b>Brightness</b>	400 cd/m <sup>2</sup>
<b>System</b>	NTSC/PAL auto recognition
<b>Inputs</b>	SDI (Serial Digital Interface-CCIR-601) (SMPTE-259M) ( BNC) Analog Composite (BNC) S-Video (Y/C) (4 pin mini din female) 3 Lamp Tally (DB-15 Female) Power (4 pin male XLR)
<b>Active Outputs</b> Available when power is applied to monitor	SDI (BNC) (Re-clocked and Re-shaped) Composite Video (BNC) S-Video (Y/C) (4 pin mini din female)

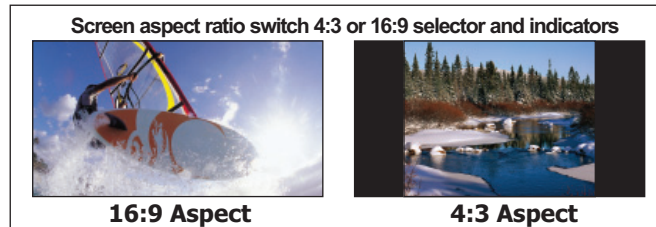
## 6 Mechanical Specification

<b>Dimensions</b>	7.44"W x 5.0"H x 2.5"D (18.89cm x 12.7cm x 6.35cm)
<b>Approx. Weight</b>	3 lbs
<b>Power Consumption</b>	14-10 VDC, 15 Watt nominal (3.0Amps max - UL Class 2 supply included)
<b>Operating Temperature</b>	-20° C to 65° C Ambient
<b>Storage Temperature</b>	-30° C to 85° C

## 10 Switch Settings, Functions and Indicators



### HDSDI/SDI Signal indication Lights for active format



Note: Tapping any active input signal toggles BLUE GUN On/Off. Signal selection is active when Blue Gun is on. Tap active selection to turn off.

## 11 Warranty

Marshall Electronics warrants to the first consumer, that this V-R70P-SD portable monitor will, under normal use, be free from defects in workmanship and materials, when received in its original container, for a period of one year from the purchase date. This warranty is extended to the first consumer only and proof of purchase is necessary to honor the warranty. If there is no proof of purchase provided with a warranty claim, Marshall Electronics reserves the right, not to honor the warranty set forth above. Therefore, labor and parts may be charged to you. This warranty does not apply to product exterior and cosmetics. Misuse, abnormal service or handling, improper alterations or modifications in design or construction, voids this warranty. No sales personnel of the seller, nor any other person is authorized to make any warranties other than those described above, or to extend the duration of any warranties on behalf of Marshall Electronics, beyond the time period described above. Due to constant effort to improve products and product features, specifications may change without notice.